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THE INFLUENCE OF MICHAL KALECKI ON JOAN ROBINSON'S APPROACH TO ECONOMICS*

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Introduction

Joan Robinson and Michal Kalecki were two of the intellectual giants of twentieth century economics, whose contributions over a significant range of issues have had major impacts, particularly on heterodox economics. This chapter examines the significant communications between them, concentrating on the major cross influences which were apparent from the first time that they met.

In a number of places Joan Robinson describes her first meeting with Kalecki and the extraordinary impact it had on her. It was the beginning of a life-long friendship. Joan Robinson was also the principal champion of Kalecki's independent discovery of the main propositions of Maynard Keynes's *General Theory*. Here are her accounts of their first meeting in early 1936, and of Kalecki's principled reaction to Keynes getting the lion's share of recognition. "I well remember my first meeting with Michal Kalecki – a strange visitor who was not only already familiar with our brand-new theories, but had even invented some of our private jokes. It gave me a kind of Pirandello feeling – was it he who was speaking or I?" (Joan Robinson 1964; 95.)

* We have chosen to write on Michal Kalecki's influence on Joan Robinson for two main reasons. First, Malcolm has made many important contributions to our understanding of Kalecki's contributions and of the theory of the firm. Secondly, both of us much admire and have been greatly influenced by Kalecki and Joan Robinson. Sadly, while we both knew Joan Robinson, neither of us ever met Kalecki – every time he was in Cambridge in the post-war period, GCH was in Australia and PK was either not born or also was in Australia. Finally, may we say how much we admire Malcolm's many contributions to post-Keynesian economics, in both his writing and teaching, and how much we value his long-sustained friendship and support? It is a privilege to contribute to this collection of essays in his honour.

"Kalecki did not make any public claim to his independent discovery of the *General Theory*. I made it my business to blow his trumpet for him but I was often met with scepticism … At the end of his life, Michal told me that he felt he had done right not to make any claim to rivalry with Keynes. It would only have led to a tiresome kind of argument. Perhaps scepticism about my claim for him was due to the difficulty of believing that anyone was capable of taking this high line in our degenerate age" (Joan Robinson 1977; 186).

In the Preface to his posthumously published essays, Kalecki (1971), is his only reference to this question. He refers to three papers published in 1933, 1934 and 1935 in Polish which contained, he believed, the essentials of *The General Theory*. (Joan Robinson, 1977, 186–7).

The ongoing debates between Joan Robinson and Kalecki, though they were fundamentally in sympathy with each other, must have been extraordinarily vigorous if we may judge from their published work, what is available of their correspondence and what is known independently of their personal characteristics, see Harcourt and Kerr 2009, Steindl 1981 and Harcourt 2006, Appendix 1. An example may be found in Joan Robinson's review article of "The economics of full employment" (Six studies in applied economics prepared at the Oxford Institute of Statistics), published in the *Economic Journal* in 1945 and reprinted in Volume I of her *Collected Economic Papers*, 1951. She thought that overall – she exempted "Mr Schumacher's contribution" – "the essays [seemed] somewhat unnecessarily technical and severe in style. [Schumacher's essay provided] an interlude in pleasant pastures between the rocky uplands of Mr. Kalecki's austere exposition and the dense forest of Dr. Balogh's close-packed argument" (Robinson 1951, 99).

Kalecki and John Robinson were to spend many hours in debate over economic and political issues. Joan Robinson refers often to his writings and views in her published writings. In Prue Kerr and Murray Milgate's General Index to Joan Robinson's five volumes of *Collected Economic Papers* (1980), there are nearly two pages listing references by Joan Robinson to Kalecki; they cover many topics, arguments and disagreements.

Important amongst these were the discussions of Keynesian theory, and the attempt by both to extend the analysis. This is discussed in the next section. Particular emphasis is placed on Kalecki's paper on "a theorem on technical progress" which he submitted to the *Economic Journal* under Keynes' editorship. Whereas Joan Robinson thought it an important paper extending Keynesian analysis, Keynes was contemptuous of the paper, which was eventually published elsewhere. Both Kalecki and Joan Robinson though that one of the central issues determining the dynamic of capitalist accumulation was the role of investment and innovation. They were both critical of Keynes's analysis of investment, but disagreed about the role of "animal spirits" as a force breaking the stagnationist tendencies of the system. This is discussed in section 3 below. The analysis of investment highlights the importance of methodological issues relating to path dependence, which was an important area in which both Joan Robinson and Kalecki made fundamental contributions. This is discussed in section four below; the related methodological question of the relation between microeconomics and macroeconomics is discussed in section five. The final section deals with their discussions of the important political constraints on full employment.

Keynesian Debates

Sadly, Joan Robinson was never to see the translation in full into English by Ferdinando Targetti and Boguslawa Kinda-Hass of Kalecki's remarkable review of Keynes's *General Theory* which was first published in Polish in 1936. It was only published fully in English in the December 1982 issue of *Australian Economic Papers*. By the time the issue reached Cambridge, Joan Robinson had suffered the severe stroke from which she never recovered.[1] The paper provides even more conclusive evidence that Kalecki had made independent discoveries and, moreover, that his

[1] GCH has often written that the translated review is the most important paper published in *Australian Economic Papers* during his 20 or so years as joint editor, see Harcourt (2006) 21, for a full account of how it came to be published.

approach, coming from his understanding of Marx's schema of reproduction, was more appropriate than Keynes's Marshallian background, for a solution of the realisation problem through the role of effective demand and the provision of a theory of the trade cycle. Furthermore, Kalecki's approach provided not only a theory of the levels of activity and employment in the short period but also a theory of the distribution of the product between wages and profits, and of the determination of total profits. This analysis was built on the base of dominant market structures and individual firms' behaviour within them, as well as on the different spending and saving behaviour of the two income classes themselves. Joan Robinson's analysis in her 1977 contribution to the Kalecki Memorial issue of the *Bulletin* of the Oxford Institute is her clearest exposition of these characteristics of Kalecki's approach, see Joan Robinson 1977, 187–96 and Harcourt (2006, 11-16).In other words, as Joan Robinson repeatedly stressed, Kalecki was able to build the theory of effective demand on the basis of foundations incorporating imperfect competition.

Kalecki's analysis of the monetary and financial aspects of modern capitalism was not as deep or subtle or sophisticated as Keynes (as Joan Robinson always acknowledged). Nevertheless, Kalecki was not handicapped by having to throw off the classical dichotomy between the monetary and the real, especially in the long period, and the accompanying quantity theory of money as a theory of the general price level, as Keynes had to, much influenced by Richard Kahn (see Harcourt 1994; 1995 and Kahn 1984), as Keynes moved from *A Treatise on Money* to *The General Theory*.

Joan Robinson always thought Kalecki took too simplistic an approach to the term structure of interest rates by concentrating on only one short-term rate and the bond rate. Kalecki, by contrast, thought that long-term rates were "remarkably stable" and so could not exert great influence on the level of investment. (Kalecki 1944, 370) She approved of the thrust of Kalecki's principle of increasing risk, especially its emphasis on the imperfections of capital markets, but again thought it too simple to be a comprehensive account of firm size and the rationale for the use of retained profits to finance investment. (In later life it seems that Occam's Razor was not always her guiding principle.) However, Kalecki believed that Joan Robinson had not understood the basis of the argument. In one example, Joan Robinson differentiates her analysis from Kalecki's "in respect of his treatment of finance as a bottleneck" (Robinson 1952, 129). In a letter commenting on the drafts of the book, Kalecki explicitly rejects this arguing that "I should like to state first that the role of finance in my theory does not correspond to what you say." (Osiatynski 1991, 538). Subsequently, in a letter to her dated 16 October 1964, Kalecki states: "I did not ever say that the 'firms invest all finance they can get'. The principle of increasing risk was to show that they may not be willing to borrow as much as they could". (Osiatynski 1991 591)

That said, it remains that the publication of *The General Theory*, meeting Kalecki in the mid 1930s and reading Marx systematically in the early years of the Second World War combined to bring about a sea change in her approach and in the structure of her theoretical contributions from then on, see Harcourt 1995. She stressed the importance of history while not accepting Marx's or Marxist ideology – she was basically a Left Keynesian and democratic socialist on the Left of the British Labour Party, see Harcourt and Kerr 2009, Ch. 5.

The changes may be most clearly seen if we compare her writings just before and after the publication of *The General Theory* where Marshallian method, concepts, and theory are still very much to the fore (just as they lay behind much of the structure of *A Treatise on Money* and *The General Theory* itself), with the structure of *The Accumulation of Capital* (1956) and *Essays in the Theory of Economic Growth* (1962), see Harcourt and Kerr 2009, Chs. 6–8. Thus, in her two "interim reports", Joan Robinson (1933a, 1933b), on the state of progress to *The General Theory*, both published in 1933 (though one was written and accepted by *Economica* in 1931, see *C.E.P.*, Vol. I, 1957, viii-ix and Harcourt and Kerr, 2009, 24–26), *A Treatise on Money*, with its Marshallian framework of short-period positions converging on the full long-period stock-flow equilibrium position, is the reference point. This is so, first, for her attempts to sort out the differences between Hayek and Keynes and, secondly, in her argument that Keynes, perhaps unknowingly or, at least, not fully realised by Keynes himself because he was writing a treatise on money, had provided the embryo of a *long-period* theory of activity and employment, see Robinson 1951, 56.

Then, in her introductory book on the new theory (1937a) and in her first attempt to extend the new theory to the long period, especially in her essay on the long-period theory of employment in (1937b), the Marshallian approach and concepts as well as Keynes's new theoretical concepts dominate. In correspondence with Joan Robinson on this paper, Kalecki insisted that the cycle was a more likely outcome than her posited long-period equilibrium.. In a letter written to Joan Robinson, dated 3 October 1936, and commenting on her "The Long-Period Theory of Employment", Kalecki argues that, as a result of a fall in the rate of interest, "the system must not reach the new long-run equilibrium in the way described in the [last] part of your paper, or fluctuate [a]round this equilibrium, but it can also produce fluctuations [a]round the ascending curve." (Osiatynski 1990 p. 503). This denial of a position of long-period equilibrium, and the emphasis on the role of the cycle and of cyclical growth, were to prove influential in Joan Robinson's later works.

Moreover, though she argued that *The Economics of Imperfect Competition* (1933c) contained a serious critique of the application of marginal productivity theory, marginal productivity theory and the then new, all-the-rage concept of the elasticity of substitution dominate the macro theory of distribution in the *Essays* volume. It is allied with the Kaleckian-Keynesian theory of the saving function in which the different values of the marginal propensities to save as between wage-earners and profit-receivers are stressed. But, in the post-war years – during the war she had published *An Essay on Marxian Economics* (1942) and innumerable papers and talks in a Left-Keynesian sense on Keynesian theory and its application to monetary, fiscal and incomes policy, see Harcourt and Kerr, 2009, Ch. 5 – she adopted and adapted Marxian-Kaleckian constructions in her new thinking about generalising *The General Theory* to the long period as exposited in *The Accumulation of Capital* (1956) and *Essays* in *The Theory of Economic Growth* (1962).

At the same time, she was developing her critique of the mainstream theory of profits (or, rather, lack of one in her opinion) and the neoclassical concept of capital, partly as a result of her need, as she saw it, to analyse the choice of technique in the economy as a whole. This was to her, a secondary, though analytically difficult, complication in her theory of long-period growth. There is little evidence that Kalecki was much interested in this aspect of her work; his emphasis was more on the analysis of technical progress in the processes of accumulation and growth, on which, of course, Joan Robinson worked as well, and commented on her debt to Kalecki for his work bringing technical progress and accumulation into line with imperfect competition and the analysis of profits and employment. Indeed, she stood up for one of Kalecki's articles on the topic against the sceptical response of Keynes in his role as editor of the *Economic Journal*. Kalecki submitted "A theorem on technical progress" to the *Economic Journal* for consideration. Keynes did not publish it, and was extremely critical of it in correspondence with Joan Robinson. From the tone of these comments there can be little doubt that Keynes would have failed these papers had he been marking them for an examination. In particular,

"Here is Kalecki's article. As I said the other night, after a highly rational introduction of a couple of pages my first impression is that it becomes high, almost delirious nonsense."[4 February 1941] Osiatynski 1991, 530.

In later letters he calls Kalecki's arguments in that paper "esoteric abracadabra" (531) and writes of it:

"So I am of the opinion that the article is pretentious, misleading, inconclusive and perhaps wrong. I would rather have cheese to a weight equal to the paper it would occupy in 5,000 copies of the Journal." [12 March 1941] Osiatynski 1991, 535.

Keynes is particularly critical of the assumptions Kalecki makes about the generality of excess capacity in capitalist economies. For Kalecki, this was a stylised fact describing modern economies, while Keynes was extremely sceptical of it:

“Is it not rather odd when dealing with `long-run problems' to start with the assumption that all firms are always working below capacity. “[4 February 1941]] Osiatynski 1991, 530.

Joan Robinson replied that under-capacity was a normal result of the theory of imperfect competition. This, however, did not impress Keynes:

“For I am still innocent enough to be bewildered by the idea that the assumption of all firms always working below capacity is consistent with `a long-run problem'. To tell me that `as for under-capacity working that is part of the usual pack of tricks of imperfect competition' does not carry me any further. For publication in the Journal an article must pass beyond the stage of esoteric abracadabra”. [12 February 1941] Osiatynski 1991, 531

Joan Robinson strongly defended Kalecki against Keynes’s criticism on a number of levels. It is clear that she both supported Kalecki’s arguments and thought they were important: “In general I think Kalecki is explain mysteries not creating them” (Osiatynski 1991, 533). “Kalecki is on to something important.” Osiatynski 1991, 534) In particular, she defended Kalecki’s use of the analysis of imperfect competition against Keynes’s criticism by pointing out that "it is in all the textbooks now", and demonstrating why, even in "full equilibrium", there would be surplus capacity. (532).

In this correspondence we see both Keynes’s scepticism in accepting the analysis of imperfect competition, and Joan Robinson’s acceptance of Kalecki’s version of it.

Investment and Innovation

Kalecki wrote extensively on investment decision rules and the determination of accumulation in capitalism and subsequently in socialism. Roy Harrod and his problems influenced both Kalecki and Joan Robinson. They took rather different tacks on what was central in Harrod’s contributions and their own interests. In her review article of Harrod’s 1948 book in the 1949 *Economic Journal*, see *C.E.P.*, Vol. I, 1951, 155–74, she writes that “Mr. Kalecki’s pioneering work … on a system of analysis dealing with a dynamic society [had] been very little followed up [and that] Mr. Harrod [made] no reference to him", *C.E.P.*, Vol. I, 1951, 155. Joan Robinson also gave far more emphasis to Golden Age models than Kalecki. No doubt she was influenced by Richard Kahn's insistence that Golden Age analysis was the necessary flexing of intellectual muscles before getting onto the really important and relevant development of process analysis of growth in modern developed and developing economies (see Kahn, 1959; 1972). The latter was always Kalecki's priority in these areas. He always analysed growth in terms of economic cycles, and although his analysis of the trend changed over time, it was never around a Golden Age trend. (Sawyer 1985, 66-68, Nevile and Kriesler 2010)

Kalecki and Joan Robinson agreed that a thorough knowledge of "the rules of the game" of societies, of their historical and sociological characteristics and of their inherited institutions were all needed before any meaningful progress in understanding their behaviour and in making policy proposals would be possible. (Unlike many mainstream economists, especially those hailing from Chicago, they did not believe it was possible to give advice as they stepped off the plane because "have model, will travel".) In Joan Robinson's essay, "Marx, Marshall and Keynes",(Robinson 1955) in illustrating how economists spanning the whole spectrum of views and approaches have lost sight of "the most valuable parts of Marx's theory", she cites, as an example: "the schema for expanding reproduction which provide a very simple and quite indispensable approach to the problem of saving and investment and the balance between the production of capital goods and the demand for consumer goods. It was rediscovered and made the basis for the treatment of Keynes's problem by Kalecki and re-invented by Harrod and Domar as the basis for the theory of long-run development." (7). Kalecki had used the reproduction schemas in his important paper, "Money and real wages" (Kalecki 1939) to illustrate that it was problems with effective demand, rather than the wage level which were the chief cause of unemployment, and elsewhere used them to analyse long-run capitalist growth. (Kalecki 1968a)

Kalecki and Joan Robinson were critical of Keynes's theory of investment, especially as it was set out in formal terms in Chapter 11 of *The General Theory* on the marginal efficiency of capital. (In recent years it has been fashionable to be particular chapters of *The General Theory* Keynesians; Joan Robinson was not a Chapter 11 Keynesian but she was very much a Chapter 12 "animal spirits" one. Kalecki, as we have noted, was his own man.) In the criticism of the formal structure of Keynes's theory, it may be surmised that Kalecki was the leader with Joan Robinson absorbing his criticism, following it and extending it, most clearly in her banana diagram (1962, 48).

As we noted, Kalecki had written a remarkable review article of *The General Theory* in Polish in 1936.(Targetti and Kinda-Hass 1982) In it, he first set out, using his own approach, the determination of the short-period level of employment (and, explicitly, his macro theory of distribution). To do this, he provisionally took the rate of investment in the short period as a given. Then, in the second part of the article, he criticised Keynes's account of the determination of investment expenditure as being an application of static tools and concepts to what is essentially a dynamic process. In other publications in English**,** he elaborated his critique and Joan Robinson built on this in a number of places in her own papers, for example, in her paper on "Keynes and Kalecki" in the *Essays* in his honour, Robinson 1964, 96– 97, and in her Kalecki Memorial lecture ,Robinson 1977, 193-195[2].

Abba Lerner (1944) had made an internal critique of Keynes's theory, concentrating on Keynes's failure to distinguish between the marginal efficiency of capital (m.e.c.) and the marginal efficiency of investment (m.e.i.) in his theory of the determination of short-period investment expenditure. Lerner argued that the essence of Keynes's theory could be captured in two propositions. First, in full, stock-flow equilibrium, m.e.i. = m.e.c. = r, where r = rate of interest. Secondly, in short-period flow equilibrium, m.e.i. = r < m.e.c. (see Harcourt 2006, Ch. 4.)

Kalecki's and Joan Robinson's criticism related to Keynes's arguments as to why, in a given situation, there is a downward sloping relationship between r and planned investment

[2] For a discussion of the differences between Keynes and Kalecki see Sawyer 1988, ch 9 and Kriesler 1997.

expenditure in the short period. (Lerner had accepted Keynes's arguments for this – hence his was an internal critique.) Keynes usually assumed marginal cost pricing in all industries and diminishing marginal productivity of labour in the short period, so that if higher levels of output are established, prices will be higher (in the case of investment, the prices of capital goods), and so the value of the m.e.i. will be lower. But this argument only goes through (as we modern theorists say), if individual business people use in their calculations of expected rates of profit on planned investment (m.e.i.), the short-period equilibrium prices of the relevant capital goods. Otherwise, the overall outcome of individual actions will not be the level of output that establishes that equilibrium price and therefore value of m.e.i. = r. Keynes, in effect, assumes rational expectations on the part of business people rather than the more commonsense behaviour that they would use the current, existing, non-equilibrium price of capital goods in their calculations.

Keynes also proposed a second, more long-period argument, namely, that the more accumulation occurred in the present, the greater would be the capacity of industries in the future and so the further out to the right would be their respective short-period supply curves. He assumed that the longer period demand curves for products could be taken as given (and downward sloping) so that expected future prices of products would be lower, the more investment is done now, and therefore the lower would be the m.e.i. as well. But as Kalecki and Joan Robinson (and also Tom Asimakopulos) pointed out, here Keynes was not being true to himself.

Usually, he argued that because the future was uncertain, the present played a large (probably too large a) part in determining what would be expected to happen. Higher investment now also meant higher prices, profits, output and employment now and these events, on his usual argument, would be projected into the future. How then could the long-period demand curves be taken as givens – would they not, too, be further out to the right, the more investment that was done now? If this were the case, it was not certain that expected prices would be lower nor that the values of m.e.i. would be lower. (See Harcourt, 2006, Ch. 4., Sawyer 1988, 194 and Kriesler 1997). " the result of this is that, instead of Keynes providing a theory of unemployment equilibrium, Kalecki argued that it is really a theory of the business cycle." (Kriesler 1997, 311)

So both Kalecki and Joan Robinson rebuilt Keynes's theory on the basis of the two-sided relationship between profitability and accumulation established by Kalecki (and Keynes) – that actual investment played a dominant role in determining actual profitability and actual profitability influenced expectations of what profitability would be, which in turn influenced the rate of investment that would be planned to be undertaken. Given the state of long-term expectations and financial conditions, more accumulation would be planned, the higher was expected profitability. Those two relationships constitute Joan Robinson's banana diagram, see Joan Robinson, 1962, 48, in which the rate of accumulation and profitability are simultaneously determined at the top point of intersection of the two relationships, see Harcourt, 2006, Ch. 4. (The bottom point of intersection is a point of unstable equilibrium.)

One important area of disagreement between Joan Robinson and Kalecki was on the nature of accumulation and stagnation in capitalist economies, which represented fundamental differences on their view of the future of the system. Kalecki stressed the stagnationist tendencies of capitalist economies, believing that this could only be overcome by inventions – that is, technical progress:

"I believe that the antimony of the capitalist economy is in fact more far-reaching : the system cannot break the impasse of fluctuations around a static position unless economic growth is generated by the impact of semi-exogenous factors such as the effect of innovations upon investment." (Kalecki 1962 p. 411. See also Kalecki's letter to Joan Robinson 25 July 1951 Osiatynski 1991 539)

For Joan Robinson, by contrast, the animal spirits of capitalists would maintain investment and capitalist growth:

"This was a subject about which I was arguing with him, on and off, for many years. He maintained that inventions (technical progress) raise the prospects of profits for capitalist firms and encourage investment. I followed Keynes and Marx in regarding the desire of capitalists to expand their operations as an inherent characteristic of the system. I expressed this view in Keynes's phrase about 'animal spirits' which caused Kalecki to regard it as somehow irrational." (Robinson 1971, 90)

Methodological issues

Joan Robinson's construction of her banana diagram reflects two strands in the literature: Keynes's shifting equilibrium model (see Keynes 1936, 292-4), and Kalecki's never-ending search for a satisfactory theory of accumulation in capitalism. This culminated in his 1968 *Economic Journal* paper, published only two years before his death, on trend and cycle. There, he argued that the long-term trend was *not* a separate or independent entity, but the statistical outcome of happenings in successive short-term situations.[3]

"In fact, the long-run trend is but a slowly changing component of a chain of short run situations; it has no independent entity and the [analysis] should be formulated in such a way as to yield the trend-cum business cycle phenomenon" [Kalecki 1968, 435]

This was his version of the process of cyclical growth, ideas that had been independently developed by Richard Goodwin, see, for example, Goodwin (1967). Joan Robinson's later writings approached agreement with Kalecki and Goodwin (see Harcourt and Kerr 2009, 96), but she did not have the formal tools that would have allowed her to set out her version of the approach, should she have wanted to (formally, we mean!).

She was very careful to point out the limited nature of the banana diagram: how even if the economy iterated onto the upper intersection point where what was expected and what happened coincided (her version of Harrod's warranted rate of growth), this was not necessarily a sustainable

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[3] Not only is this a fundamental criticism of the distinction between existence and stability of equilibrium with overall independence between the factors responsible for each, but also of the statistical procedure of breaking down time series into trends and cycles as though they too were each the outcome of separate factors independent of those responsible for the other.

position. The very process of moving through historical time could change the factors determining the two relationships in any given initial situation, that is to say, path-dependence would almost certainly occur.

This highlights another important influence of Kalecki on Joan Robinson, namely on the nature of the long-period analysis. For Kalecki, the concept of a long-period equilibrium was extremely problematic, as the earlier quote indicates. From the very beginning of their relationship, Kalecki stressed this point to Joan Robinson, insisting that the cycle was a more likely outcome than a long-period equilibrium. In a letter written to Joan Robinson, dated 3 October 1936, and commenting on her "The Long-Period Theory of Employment", Kalecki argues that, as a result of a fall in the rate of interest, "the system must not reach the new long-run equilibrium in the way described in the [last] part of your paper, or fluctuate [a]round this equilibrium, but it can also produce fluctuations [a]round the ascending curve." (Osiatynski 1990, 503). Throughout the later periods of her work, Joan Robinson contrasted what she called history versus equilibrium. By this she meant a rejection of the comparative static method of comparing equilibrium in favour of an analysis of the path the economy takes in historical time. In particular, she argued that equilibrium, if it existed would always be path dependant, though, in the end she did not think that there was an equilibrium to be found or approached, or even of one waiting to be found. Already, in the early correspondence between Kalecki and Joan Robinson, we see Kalecki attempting to push her to this conclusion, in his rejection of the notion of equilibrium, and, in addition, with his rejection of the long period as having a separate identity, and in his emphasis on path determinacy: "the rate of growth at a given time is a phenomenon rooted in past economic, social, and technological developments rather than determined fully by the coefficients of our equations as is the case with the business cycle." (Kalecki 1968, 450)

Microfoundations?

Despite the fact that the distinction was suggested by Keynes (Keynes 1936 p. 293), Joan Robinson was very critical of the modern distinction between micro and macro analysis. One of the most powerful statements of her view is in "What are the questions?" (see Joan Robinson, 1977a, 4). One cannot exist without the other, for "[m]icro questions … cannot be discussed in the air without any reference to the structure of the economy in which they exist [or] to the process of cyclical and secular change. Equally, macro theories of accumulation and effective demand are generalizations about micro behaviour … If there is no micro theory, there cannot be any macro either."

Moreover, the macro setting for orthodox micro theory is a kind of vague Say's Law world which, until very recently anyway, is *not* the macro world that is analyzed in *its* own separate compartment. This implies that she would not have accepted the modern search for micro-economic foundations of macroeconomics (nor, probably, macroeconomic foundations of microeconomics, see Crotty, 1980). In this she is very close to Kalecki's view: "[t]he macro and the micro analysis each tell part of the story, and it is only through their interrelation that the whole account emerges. In this way it can be seen that the micro and the macro analyses ...lie side-by-side, existing interdependently , that is, on an equal footing". . (Kriesler 1996, 66). Joan Robinson was clearly influenced by Kalecki's microanalysis, both in terms of his work on markup pricing, and also on the relation between microeconomic and macroeconomic aspects of the determination of output.

In a number of places Joan Robinson has argued that Kalecki's version of pricing theory is "more robust than Keynes'" and also a major improvement on her own work in *The Economics of Imperfect Competition* (Robinson 1977 p. 187). She became critical of her book due to its comparative static nature, which, she argued, ignored the fundamental issues relating to time and to the problems of getting into equilibrium discussed above. She believed that Kalecki's analysis avoided these problems. Kalecki's markup approach was seen as being more dynamic, and also related the pricing decision and distribution to the determination of output, while presenting an alternative theory of distribution to the neoclassical one, of which Joan Robinson was so critical. “It was Michal Kalecki rather than I who brought imperfect competition into touch with the theory of employment.” (Robinson 1933c, viii)

In Kalecki’s view, in manufacturing industry, prices are set by producers as a markup over costs. For Kalecki, the main determinant of the markup was the degree of competition in the relevant market. However, Joan Robinson was unhappy with this formulation of pricing as it was strictly defined in “short-period terms”. “I objected that there must be some long-period element in the relation of prices to costs”. (Robinson 1977, 189)

What Joan Robinson particularly appreciated in Kalecki’s work was the integration of the analysis of pricing with the analysis of effective demand., which she saw as the appropriate path for future development: "There are two elements in Kalecki's analysis, the share of profit in the product of industry is determined by the level of gross margins, while the total flow of profits per annum depends upon the total flow of capitalists' expenditure on investment and consumption...... In this way, Kalecki was able to weave the analysis of imperfect competition and of effective demand together and it was this that opened up the way for what goes under the name of post-Keynesian economic theory.[4]" (Robinson 1977, 193)

Joan Robinson was particularly critical of modern microeconomic theory, which, she argued, ignored important aspects of production associated with historical time and uncertainty, unlike Kalecki’s analysis where both played a central role in both micro and macro analysis. (Robinson 1971a 95-97)

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[4]. Originally Joan Robinson had incorrectly distinguished these two as two different theories, with the markup pricing theory explaining distribution in the short-run, while the macroanalysis was seen as a long-run theory Robinson 1964, 99

The Political Trade Cycle

Joan Robinson was also influenced by Kalecki’s analysis of the political limits to full employment,. As early as 1943, Kalecki was warning that there was an important distinction between achieving full employment after a slump and maintaining it. He argued that, because unemployment served important functions in capitalist economies, the maintenance of full employment was not compatible with capitalist economies. Unemployment was essential for the survival of capitalism as it was the means by which the capitalist class asserted its control over the working class. Without unemployment, the system would exasperate the underlying social and political tensions resulting in problems of discipline and instability . “Indeed, under a regime of permanent full employment, the 'sack' would cease to play its role as a disciplinary measure. The social position of the boss would be undermined, and the self-assurance and class-consciousness of the working, class would grow.” [Kalecki 1943 p. 351]

Joan Robinson reinterpreted Kalecki’s analysis as providing the basis of a model of the political trade cycle. According to Joan Robinson’s interpretation, although governments now know how to create full employment, for the reasons discussed they would not want to do so. However, too much unemployment would have electoral implications. “Thus [Kalecki] predicted that after the war we should experience a political trade cycle with alternating *stop* and *go*”. (Robinson 1977, 195).

Conclusion

In this chapter, we have documented the importance of the intellectual relationship between Michal Kalecki and Joan Robinson. It was a fertile relationship, where two great intellects influenced each other’s economic ideas and thinking, much to the benefit of the discipline. The discussion has highlighted a number of important themes in their relationship, which their debates helped to refine. In particular, the nature of path dependence, and the interrelationship of all aspects of economic behaviour were consistent themes in their discussions. Fittingly, these are important starting points for Post-Keynesian economics, not least as it has been developed by Malcolm Sawyer.

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